Refrigerant
R410A

AIRSTAGE™

Variable Refrigerant Flow System

Multi Air Conditioning System for Buildings

The Intelligent Choice in Comfort

J SERIES

FUJITSU GENERAL LIMITED

CE

TÜV CERT DIN EN ISO 9001 Certificate: 09 100 79269 | BVQI ISO 14001 | UKAS ENVIRONMENTAL MANAGEMENT

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Fujitsu General (Shanghai) Co., Ltd.

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S&E

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High-performance air conditioning system

The compact VRF System provides economical and comfortable air conditioning for wide range of applications from living space to business space.

Compact VRF System for use in apartments, homes, shops, offices

Apartments

The common areas and individual room spaces in apartment blocks have differing air conditioning needs. What is required is an air conditioning system that provides comfortable conditions and is economical and surroundings conscious.

Homes

Homes need individual air conditioning control for specific rooms that can also be easily switched to standby mode if the occupants have to go out at short notice.

A range which allows an unlimited combination of indoor and outdoor units accord

Outdoor units R410A R410A

Heat pump type	Cooling only type
AO54U	AO54F
P4, P5	

Indoor units

Cassette type (Compact)	Cassette type	Duct type (Compact)	Duct type
	Slim Type		
AU7 / AU9 / AU12 / AU14 / AU18	AU20 / AU25 / AU30 AU36 / AU45 / AU54	AR7 / AR9 AR12 / AR14 / AR18 / AR22	AR25 / AR30 / AR36 / AR45
P14	P15	P16	P17

Piping material

- Use the correct refrigerant piping and materials for R410A.
- For the pipe wall thickness, see the table below.

Copper pipe outside diameter(Ø)	Ø6.35	Ø9.52	Ø12.70	Ø15.88	Ø19.05
Material	Copper JIS H3300 C1220T-O or equivalent 1)				
Copper pipe 2) wall thickness (mm)	0.8	0.8	0.8	1.0	1.2

Note: Always observe and follow the necessary local regulations when installing refrigerant piping.
1) Allowable tensile stress ≧ 33 (N/mm^2); 2) Design pressure 4.2MPa.

Tools

- R410A work requires a number of special tools (※ symbol).
  Since tools used in R22 work cannot be used, provide the tools separately.

Tool name	Process and application	
Pipe cutter	Pipe cutting	Refrigerant piping work
※ Flaring tool	Pipe flaring work	
※ Torque wrench (1/2, 5/8)	Flare nut connection	
Expander	Expansion at pipe connection	
Pipe bender	Pipe bending work	
Nitrogen gas	Pipe interior oxidation prevention	Air tightness test
Welder	Pipe brazing	
※ Gauge manifold	Vacuum evacuation and refrigerant charging operation check	Air tightness test ~ Refrigerant additional charging
※ Charging hose		
※ Vacuum pump(with adaptor)	Vacuum drying	
Electronic scale for refrigerant charging	Refrigerant additional charging	
Gas leak tester	Gas leakage test	

Work precautions

Refrigerant check Before work, check the refrigerant used and prepare materials matched to the refrigerant.

Refrigerant piping Observe the basics (dry, clean) of refrigerant piping and carry out work so that problems will not occur. Moreover, when performing welding work, seal in nitrogen gas and perform work so that an oxide film is not produced.

Dry
No water inside

Clean
No dirt inside

Leak pressure test Conduct a pressure test sufficiently and make sure there is no refrigerant leakage.

Vacuum drying If the vacuum pump does not have a reverse flow check mechanism, use the pump together with a reverse flow check adapter.

Additional refrigerant Charge only the amount of R410A refrigerant calculated in the additional refrigerant charge calculation. This refrigerant should ony be charged in a liquid form.

R410A Work Notes

R410A

The working pressure of R410A is approximately 1.6 times higher than that of R22.
As the oil type is also different, be sure not to mix them.

Refrigerant	R410A	R407C	R22
Oil	POE oil	POE oil	Mineral oil
Pressure ratio	Approx. 1.6	Approx. 1.1	1

Work flow

Preparations

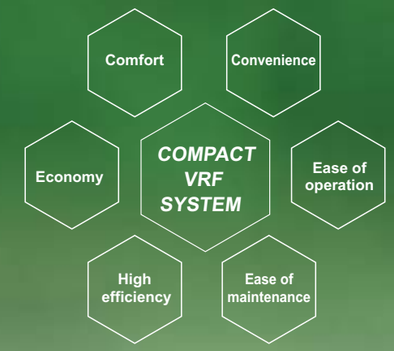
- Prepare schedule of works
- Refrigerant check → • Always check the refrigerant used. • Always use the specified refrigerant.
- Operation chart preparation

Start of work

- Indoor unit installation
- Refrigerant piping work → • Use piping material of the specified thickness. • Do not use pipe with dust and dirt sticking to it during piping connection work. • Always flow nitrogen during welding work.
- Drain piping work
- Duct work
- Insulation work
- Remote controller installation
- Electric wiring work → • Do not connect to the power source.
- Outdoor unit foundation work
- Outdoor unit installation
- Refrigerant piping connection (Outdoor unit)
- Leak pressure test → • Seal with nitrogen up to the set pressure. • After 24 hours, check whether or not the pressure in the piping has dropped.
- Vacuum evacuation and drying → • Air purging by refrigerant gas is strictly prohibited. • Use a special vacuum pump with reverse check mechanism.
- Refrigerant additional charging → • Calculate the refrigerant additional charging amount, and charge a suitable amount. (The charge amount shall be entered at the specified place on the outdoor unit.)
- Gas leakage check
- Outside panel installation
- Address setting
- Test run and adjustment
- Hand over
- Customer demonstration

A compact VRF System that responds to the needs of each building

Backed by advanced air conditioning technology, this compact VRF System was developed to meet six key requirements: high efficiency, economy, comfort, convenience, ease of operation, and easy maintenance. This VRF System delivers a comfortable and economical environment.



and a broad range of other applications

Offices

The spaces within office premises can all have different air conditioning requirements. Energy saving and economic operation are major issues and what is needed is an air conditioning system which can be accurately matched to each space and centrally controlled.

Shops

As shop premises are regularly upgraded and the operating conditions for each can vary so much, large-scale air conditioning management is very difficult. Consequently, a VRF air conditioning system matched to each shop is an ideal solution.

ing to the building and application

Wall mounted type (Compact)	Wall mounted type	Remote controller (Option)				Accessories	
		Group remote controller	Wired remote controller	Simple remote controller		Wireless remote controller	IR receiver unit
		*1					
AS7 / AS9 / AS12 / AS14	AS18 / AS24 / AS30	UTB-YDB / UTB-GDB	UTB-YUB / UTB-GUB/ UTB-TUB	UTB-YPB / UTB-GPB/ UTB-TPB	UTB-YRA / UTB-GRA/ UTB-TRA		(Duct type only)
P18	P19	P9	P10	P10		P11	P11

*1. Network converter (UTR-YGCA) is required, when installing group remote controller.

High-performance outdoor unit delivering com

AIRSTAGE J SERIES

R410A

Heat pump type AO54U

Cooling only type AO54F

Powerful operation with low electricity consumption

- Excellent COPs are attainable as shown in the table below.

Cooling COP	3.20※
Heating COP	3.40※

* "COP" is the coefficient of performance (= capacity (kW) ÷ input power (kW)).
※ COP values are base on our own testing method.

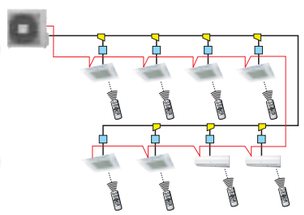
- Uses a high-performance DC inverter scroll compressor with variable capacity according to the load during cooling and heating.

High-capacity connection possible

- One outdoor unit can connect to up to 8 indoor units.
- Connectable capacity is 150% of the outdoor unit rating and can cope with a range of operating modes.

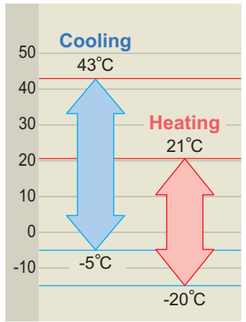
Max 8 indoor units connectable

Indoor unit connectable capacity 150%



Operating outside air temperature range

- Outdoor unit operates over an ambient temperature range of -5℃ to 43℃ for cooling and -20℃ to 21℃ for heating.



Optional Parts

EV kit

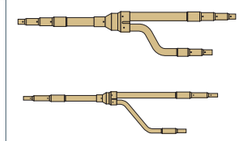
UTR-EV2A / UTR-EV3

- EV kit is available for installation as necessary.
  Model code < 30 : UTR-EV2A
  Model code ≧ 30 : UTR-EV3

Separation tube

UTR-BP54U

- Separation tubes are available for installation as necessary.



Grille kit

UTG-UDYD-W
UTG-UDGD-W

- Grille for compact cassette type indoor unit.

Header

UTR-HD546U

- Headers are available for installation as necessary.

Remote sensor unit

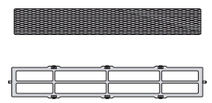
UTD-RS100

- Thermo sensor for sensing the temperature of an arbitrary place in the room

Air clean filter

UTR-FA08

- For wall mounted type
- Air clean filter assembly for initial setting.



Flange (Square)

UTD-SF045T

- For duct type
  205 x 1,063, L=40 (mm)

Air clean filter

UTR-FB03

- Replacement filter for UTR-FA08

Flange (Round)

UTD-RF204

- For duct type
  Ø195 (Ø205), L=85 (mm)

Flexible duct

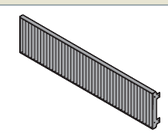
UTD-RD202

- For duct type
  Ø200, L=2m

Long-life filter

UTD-LF270

- For duct type



Accessories

Wireless remote controller

- Supplied with each indoor unit

IR receiver unit

- IR receiver unit is connected for each duct type indoor unit.

Optional Parts

Group remote controller

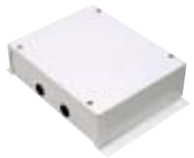
UTB-YDB / UTB-GDB

- Up to 8indoor units can be controlled by a single controller.
- When air conditioner ON/OFF and temperature setting are preset automatically by using a weekly timer, operation can be started and stopped automatically.

Network converter

UTR-YGCA

- Network converter is required to connect Group Remote Controller to an VRF system.



Wired remote controller

UTB-YUB / UTB-GUB
UTB-TUB

- Wired remote controller capable of controlling each indoor unit individually.
- Can be used together with wireless remote controller.

Simple remote controller

UTB-YPB / UTB-GPB
UTB-TPB

- Concentrates on basic operations such as On/Off, Fan Control, Operation Mode Switching and Temperature Setting.

Simple remote controller

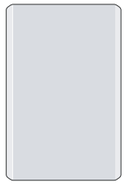
UTB-YRA / UTB-GRA
UTB-TRA

- Concentrates on basic operations such as On/Off, Fan Control and Temperature Setting.

External switch controller

UTR-YESA

- Switching of the air conditioner can be controlled by connecting other sensor switches.

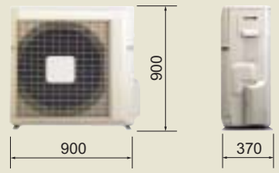


fort and economy

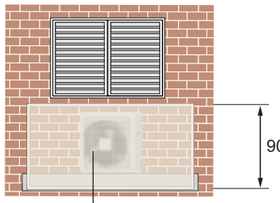
Lightweight and compact design

- Small, compact casing can be easily concealed.

Dimensions
H900 x W900 x D370mm

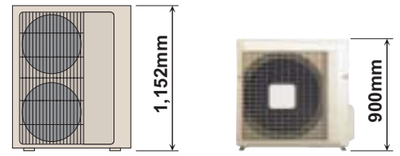


(Unit: mm)



The low overall height allows the unit to be neatly positioned beneath a window.

Low height and lightweight design



120kg ▶ **97kg**

Conventional type
15.2kW single type

AIRSTAGE J series
15.2kW VRF

Noise reduction

- Newly designed larger fan and double casing bell mouth construction reduce noise emissions.

Large fan

Low-speed design suppresses noise by using a larger fan.

Double casing bell mouth

Double casing bell mouth helps to reduce noise.

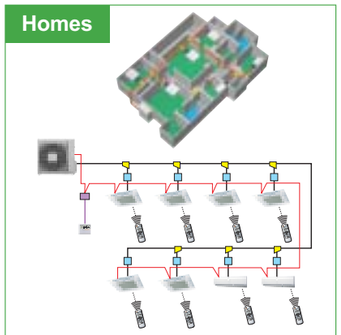
Compact VRF System allows design flexib

Flexible design

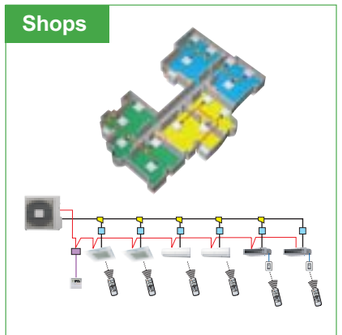
Superior design flexibility allows individual air conditioning of multiple rooms.

System that allows individual air conditioning of multiple rooms

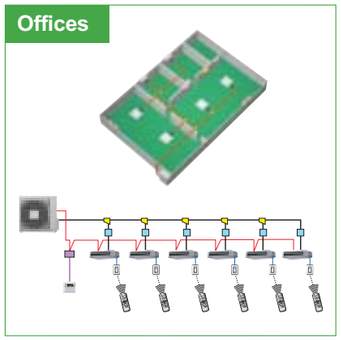
Homes



Shops

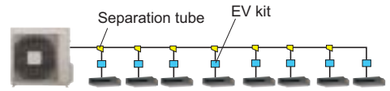


Offices

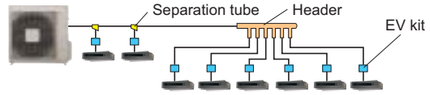


Piping connection examples

Separation tube system

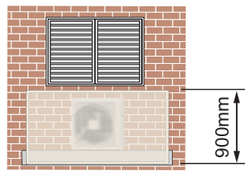


Separation tube + header system



Easier outdoor unit installation

- Discreet installation



Height	900
Width	900
Depth	370

Unit: mm

The compact dimensions allow the outdoor unit to be installed below a window.

Large capacity connectable

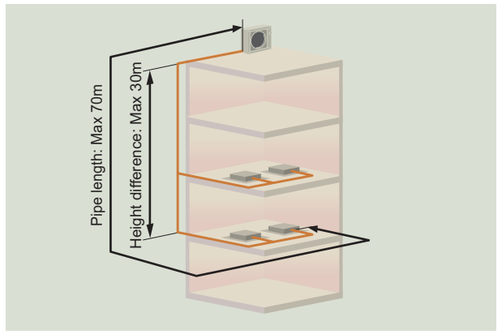
- Up to 8 indoor units can be connected to 1 outdoor unit. Furthermore, the indoor unit connection capacity can be up to 150% of the outdoor unit rating. This increases design flexibility.

Max 8
Indoor units connectable

150%
Connectable capacity

Long piping length

- The maximum piping length is 70m, and can cope with a wide range of applications from homes to offices.



All indoor units are supplied with a remote controller

- All indoor units come with a wireless remote controller.

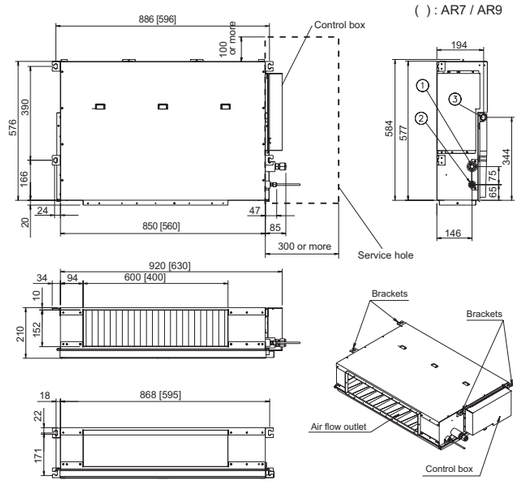
Note: IR receiver unit is available for duct type indoor unit.

Indoor unit Duct type (Compact) (Unit : mm)

Models: AR7 / AR9 / AR12 / AR14 / AR18 / AR22

*Service accessibility must be allowed for when installing the product.
Please consult the installation manual for the necessary service access size.

( ) : AR7 / AR9

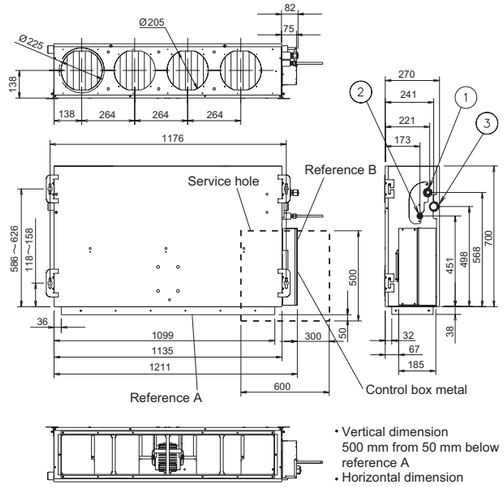


①Refrigerant piping flare connection (Gas)
②Refrigerant piping flare connection (Liquid)
③Drain piping connection (Drain pipe : I.D.Ø21.5 O.D.Ø26.0)

Indoor unit Duct type (Unit : mm)

Models: AR25 / AR30 / AR36 / AR45

*Service accessibility must be allowed for when installing the product.
Please consult the installation manual for the necessary service access size.

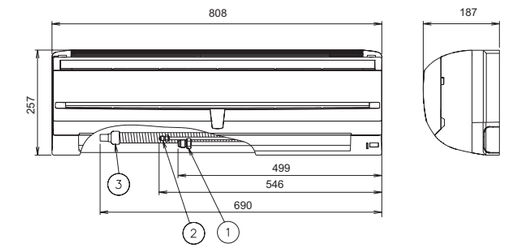


- Vertical dimension
  500 mm from 50 mm below reference A
- Horizontal dimension
  600 mm from 300 mm from the left from reference B

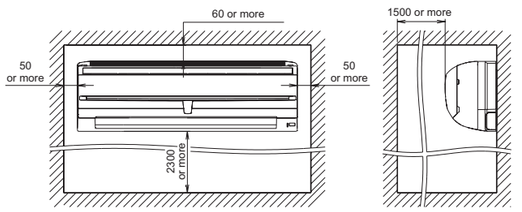
①Refrigerant piping flare connection (Gas)
②Refrigerant piping flare connection (Liquid)
③Drain piping connection (Drain pipe : I.D. Ø35.7 O.D.Ø38.1)

Indoor unit Wall mounted type (Compact) (Unit : mm)

Models: AS7 / AS9 / AS12 / AS14

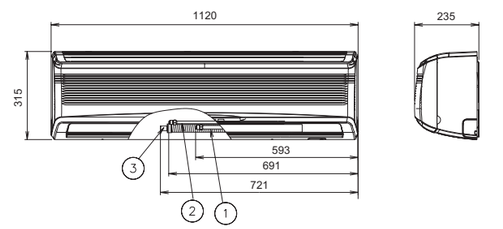


①Refrigerant piping flare connection (Gas)
②Refrigerant piping flare connection (Liquid)
③Drain piping connection
(Drain hose : I.D. Ø12 O.D.Ø16.2-17 L 620

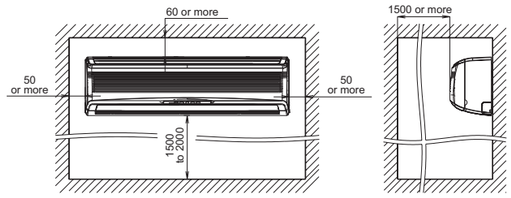


Indoor unit Wall mounted type (Unit : mm)

Models: AS18 / AS24 / AS30



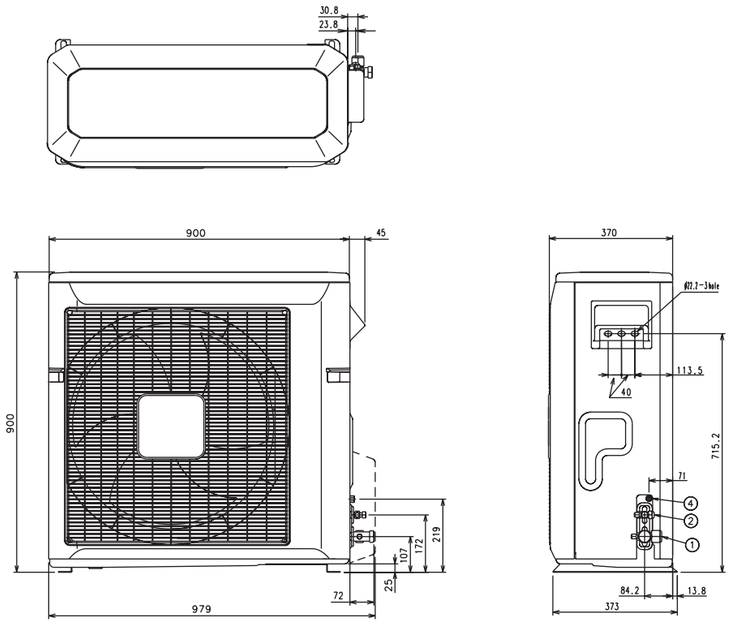
①Refrigerant piping flare connection (Gas)
②Refrigerant piping flare connection (Liquid)
③Drain piping connection
(Drain hose : I.D.Ø17 O.D.Ø24 L670)



Dimensions

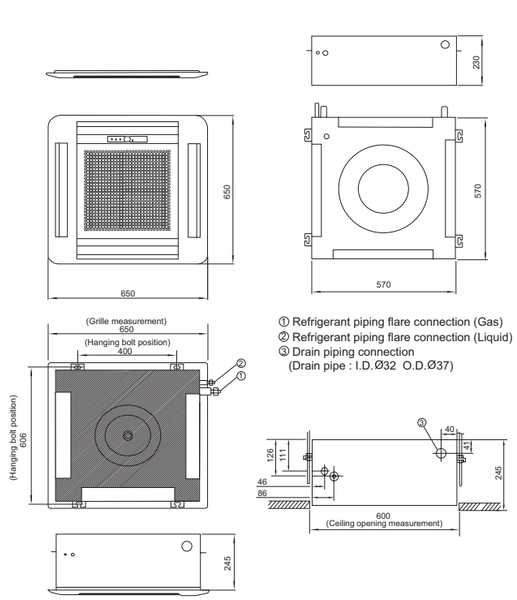
Outdoor unit (Unit : mm)

Models: AO54U / AO54F



Indoor unit Cassette type (Compact) (Unit : mm)

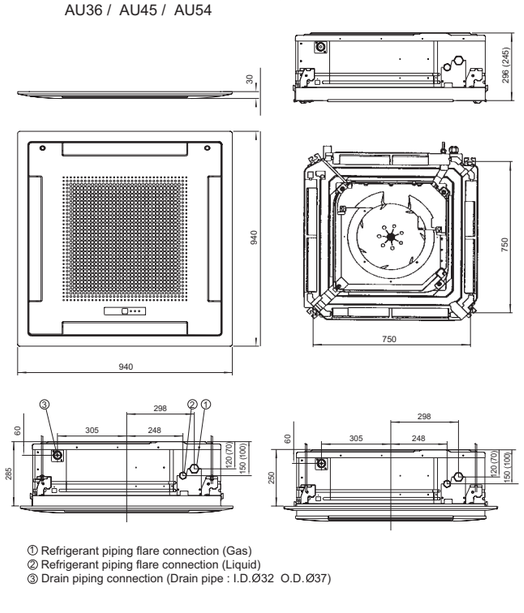
Models: AU7 / AU9 / AU12 / AU14 / AU18



① Refrigerant piping flare connection (Gas)
② Refrigerant piping flare connection (Liquid)
③ Drain piping connection
(Drain pipe : I.D.Ø32 O.D.Ø37)

Indoor unit Cassette type (Unit : mm)

Models: AU20 / AU25 / AU30 (Slim type)
AU36 / AU45 / AU54



① Refrigerant piping flare connection (Gas)
② Refrigerant piping flare connection (Liquid)
③ Drain piping connection (Drain pipe : I.D.Ø32 O.D.Ø37)

( ) : AU20 / AU25 / AU30

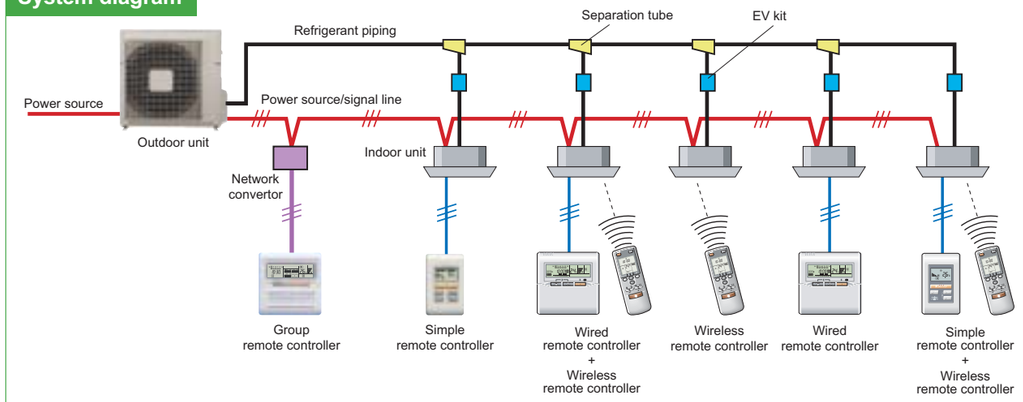
ility and efficient operation

Easy installation Quick and easy to install.

Easy to understand piping and wiring installation

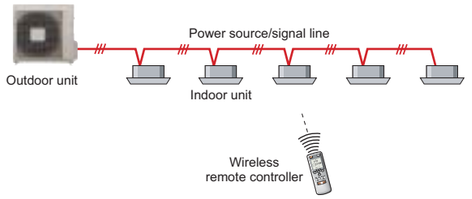
- The wiring work is simple in the connection wiring system one by one.
- The dedicated communication line is unnecessary.
- The electrical work is simple because of single-phase power supply.

System diagram



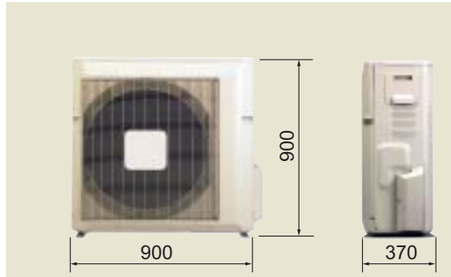
System addressing

- During installation work, system addressing can be performed using the wireless remote controller, thus eliminating manual switch setting.



Easier installation of the outdoor unit

- Compact size and lightweight



(Unit: mm)

Weight	97kg

The outdoor units is light and compact and easy to handle during installation.

Control system that always provides a pleasant air conditioned environment

Four types of controllers are available to meet the varied needs of the building and the user. Tighter control over the air conditioned environment can be achieved by combining group remote controller which can operate all the indoor units at the same time, a wired remote controller with a weekly or daily schedule, a wireless remote controller and a simple remote controller.

Wireless control

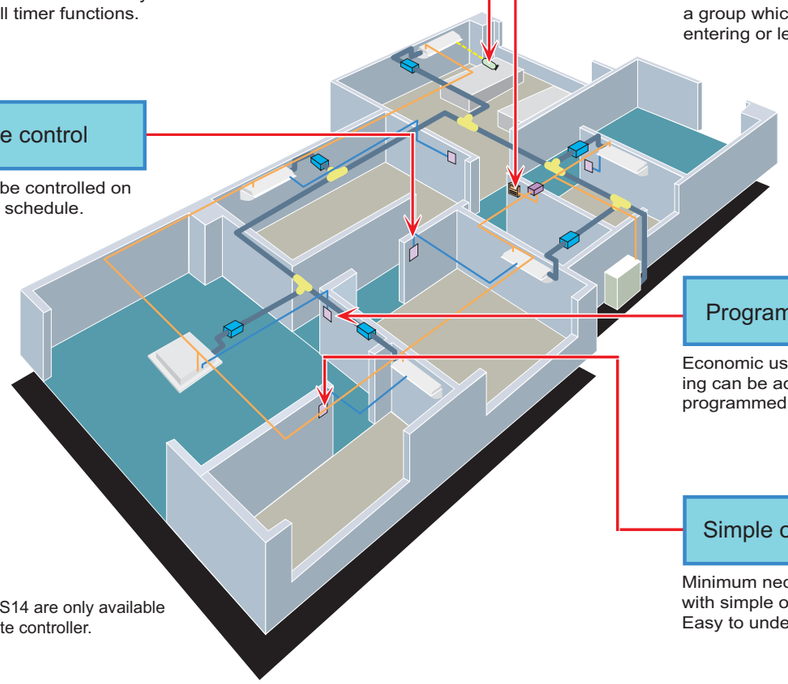
Conveniently positioned and easily operated, with full timer functions.

Group control

Indoor units can be controlled as a group which is convenient when entering or leaving the building.

Schedule control

Indoor units can be controlled on a weekly or daily schedule.



Program On/Off control

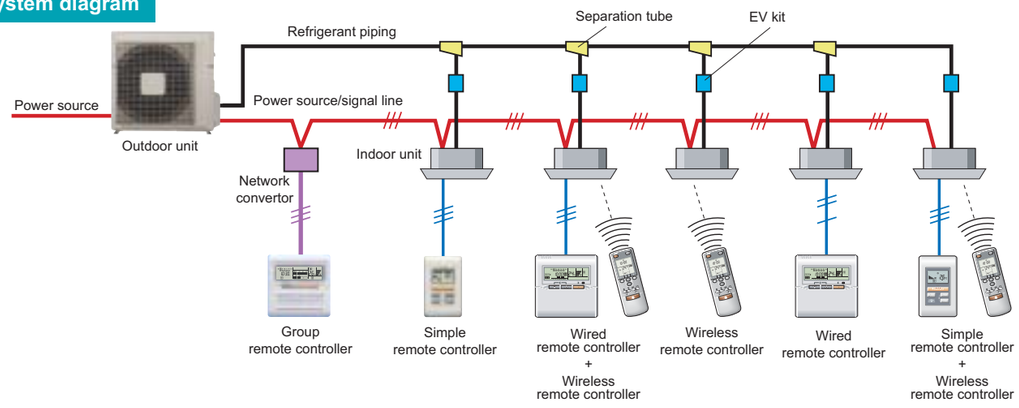
Economic use of the air conditioning can be achieved by using programmed on/off control.

Simple operation control

Minimum necessary functions with simple operation.
Easy to understand and use.

*AS7/AS9/AS12/AS14 are only available for wireless remote controller.

System diagram



Indoor unit			Duct type (Compact)						Duct type			
Model			AR7	AR9	AR12	AR14	AR18	AR22	AR25	AR30	AR36	AR45
Model name			AR7 UFABR	AR9 UFABR	AR12 UFADR	AR14 UFADR	AR18 UFADR	AR22 UFADR	AR25 UFAAR	AR30 UFAAR	AR36 UFAAR	AR45 UFAAR
Power source			220-240V, 50Hz									
Cooling capacity		kW	2.15	2.80	3.50	4.00	5.30	6.00	7.05	8.80	10.5	12.7
		BTU / h	7,300	9,600	11,900	13,700	18,100	21,100	24,100	30,000	36,000	43,500
Heating capacity		kW	2.45	3.10	4.10	4.80	5.60	6.30	7.85	9.10	10.7	13.7
		BTU / h	8,400	10,600	14,000	16,400	19,100	21,500	26,800	31,000	36,500	47,000
Input power		W	32		49		77		155		315	
Current		A	0.20		0.24		0.36		0.68		1.44	
Maximum current			0.24		0.29		0.40		0.84		1.84	
Heat exchanger			Plate fin coil									
Air circulation	High	m^3 / h	420		620		890		1,200		2,200	
	Med		390		550		840		1,100		2,000	
	Low		360		470		780		1,000		1,800	
Recommend static pressure		Pa	0 to 40						30 to 160		30 to 180	
Fan type x number			Sirocco x 1		Sirocco x 2							
Fan motor output		W	10		14		36		77		275	
Noise level (sound pressure)	High	dB (A)	34		33		42		44		49	
	Med		32		29		41		42		47	
	Low		31		27		38		40		45	
Air filter			PP monofilament net (Antibacterial / Deodorization)						Filter : UTD-LF270 (Option) PP honeycomb net, Fungicide Type			
Dimensions (H x W x D)	Net	mm	217 x 663 x 595		217 x 953 x 595				270 x 1,210 x 700			
	Gross		324 x 785 x 686		324 x 1,075 x 686				300 x 1,300 x 790			
Weight	Net	kg	18		25				43		45	
	Gross		22		29				53		55	
Pipe size	Diameter Liquid	mm	Ø6.35						Ø9.52			
	Diameter Gas		Ø9.52		Ø12.70		Ø15.88				Ø19.05	
	Connection method		Flare									
Drain pipe material / Outer dia. (mm) / Inner dia. (mm)			ABS/Outer diameter 26mm / Inner diameter 21.5mm						Steel/Outer diameter 38.1mm / Inner diameter 35.7mm			

AR7 / AR9

AR12 / AR14
AR18 / AR22

AR25 / AR30
AR36 / AR45

Note: Specifications are based on the following conditions.
Cooling: Indoor temperature 27℃CDB/19℃CWB, and outdoor temperature 35℃CDB/(24℃CWB).
Heating: Indoor temperature of 20℃CDB/(15℃CWB), and outdoor temperature 7℃CDB/6℃CWB.
Standard static pressure: 0Pa (AR7 to AR22), 100Pa (AR25 to AR45).
Voltage: 230 [V]

AS* : AS (FUJITSU), ASG (GENERAL)

Indoor unit			Wall mounted type (Compact)				Wall mounted type		
Model			AS7	AS9	AS12	AS14	AS18	AS24	AS30
Model name			AS*7 UFADR	AS*9 UFADR	AS*12 UFADR	AS*14 UFADR	AS*18 UFAJR	AS*24 UFAJR	AS*30 UFAJR
Power source			220-240V, 50Hz						
Cooling capacity		kW	2.15	2.80	3.50	3.80	5.40	6.90	8.00
		BTU / h	7,400	9,600	11,900	13,000	18,400	23,600	27,300
Heating capacity		kW	2.45	3.10	4.10	4.50	5.60	7.80	8.80
		BTU / h	8,400	10,600	14,000	15,400	19,100	26,600	30,000
Input power		W	26	33	40		38	50	60
Current		A	0.15	0.17	0.21		0.18	0.24	0.28
Maximum current			0.18	0.21	0.24		0.22	0.29	0.34
Heat exchanger			Plate fin coil						
Air circulation	High	m^3 / h	410	500	540		840	950	1,050
	Med		370	450	510		700	800	940
	Low		350	410	480		600	670	780
Fan type x number			Cross flow x 1						
Fan motor output		W	13				38		
Noise level (sound pressure)	High	dB (A)	30	36	39		42	45	48
	Med		27	33	37		39	41	45
	Low		26	30	34		35	37	41
Air filter			PP honeycomb (Antibacterial and Mold proofing)				PP monofilament net (Deodorization, Anti-mold)		
Casing color			White				White		
Dimensions (H x W x D)	Net	mm	257 x 808 x 187				320 x 1,120 x 220		
	Gross		270 x 850 x 310				348 x 1,240 x 427		
Weight	Net	kg	8				16		
	Gross		10				22		
Pipe	Diameter Liquid	mm	Ø6.35						Ø9.52
	Diameter Gas		Ø9.52		Ø12.70		Ø15.88		
	Connection method		Flare						
Drain pipe material / Outer dia. (mm) / Inner dia. (mm)			With 620mm drain hose, PVC / Outer diameter 16.2-17mm / Inner diameter 12mm				With 670mm drain hose, PVC / Outer diameter 24mm / Inner diameter 17mm		

AS7 / AS9 / AS12
AS14

AS18 / AS24 / AS30

Note: Specifications are based on the following conditions.
Cooling: Indoor temperature 27℃CDB/19℃CWB, and outdoor temperature 35℃CDB/(24℃CWB).
Heating: Indoor temperature of 20℃CDB/(15℃CWB), and outdoor temperature 7℃CDB/6℃CWB.
Voltage: 230 [V]

Specifications

AO* : AO (FUJITSU), AOG (GENERAL)

Outdoor unit

Model				AO54U	AO54F
Model name				AO*54UJBMR	AO*54FJBMR
Power source				Single-phase, 220-240V, 50Hz	
Capacity		Cooling	kW	15.2	
		Heating		16.6	—
Input power		Cooling		4.75	
		Heating		4.88	—
Maximum current			A	30A, 25A, 20A, 15A (The ranges can be selected by setting DIP switch)	
COP		Cooling		3.2	
		Heating		3.4	—
Heat exchanger				Plate fin coil	
Air circulation			m^3 / h	5,250	
Fan type x Number				Propeller x 1	
Fan motor output			W	150	
Noise level (sound pressure)	Normal operation mode		dB(A)	56	
	Silent operation mode			51	
Compressor		Type		Scroll	
		Driving method		DC inverter	
		Motor output	W	3,000	
Refrigerant				R410A	
Refrigerant oil				Synthetic oil (POE oil)	
Casing color				Beige	
Dimensions (H x W x D)		Net	mm	900 x 900 x 370	
		Gross		1,021 x 1,026 x 436	
Weight		Net	kg	97	
		Gross		112	
Safety devices				Fan motor thermal protector, High pressure switch, Low pressure switch, Fuse	
Operation range		Cooling	°C	-5 to 43	
		Heating		-20 to 21	—
Pipe	Diameter	Liquid / Gas	mm	Ø9.52 / Ø19.05	
	Max length / Max height difference		m	70 / 30	
	Pipe connection method			Flare	
Connectable indoor units				Maximum 8	
Connectable indoor unit capacity				50% to 150%	

AO54U

AO54F

Note: Specifications are based on the following conditions.
Cooling: Indoor temperature 27℃CDB/19℃CWB, and outdoor temperature 35℃CDB/(24℃CWB).
Heating: Indoor temperature of 20℃CDB/(15℃CWB), and outdoor temperature 7℃CDB/6℃CWB.
Voltage: 230 [V]

AU* : AU (FUJITSU), AUG (GENERAL)

Indoor unit

Model				Cassette type (Compact)					Cassette type					
				AU7	AU9	AU12	AU14	AU18	AU20	AU25	AU30	AU36	AU45	AU54
Model name				AU7 UFAAR	AU9 UFAAR	AU12 UFAAR	AU14 UFAAR	AU18 UFAAR	AU*20 UFARR	AU*25 UFARR	AU*30 UFARR	AU*36 UFASR	AU*45 UFASR	AU*54 UFASR
Power source				220-240V, 50Hz										
Cooling capacity			kW	2.15	2.80	3.60	4.00	5.00	5.70	7.05	8.80	10.5	12.7	14.1
			BTU / h	7,400	9,600	12,300	13,700	17,100	19,500	24,100	30,000	35,800	43,400	48,100
Heating capacity			kW	2.45	3.10	4.10	4.50	5.45	5.80	7.85	9.10	10.7	13.7	15.8
			BTU / h	8,400	10,600	14,000	15,400	18,600	19,800	26,800	31,100	36,500	46,800	53,900
Input power			W	28		52		50	117	129	142	175	190	219
Current			A	0.13		0.23		0.22	0.76	0.80	0.84	0.92	0.94	0.95
Maximum current			A	0.15		0.27		0.26	0.91	0.96	1.00	1.10	1.12	1.14
Heat exchanger				Plate fin coil										
Air circulation		High	m^3 / h	530		580		640	1,030	1,170	1,270	1,500	1,650	1,780
		Med		480		520		540	850	970	1,070	1,300	1,450	1,550
		Low		410		460		470	680	770	880	1,100	1,200	1,300
Fan type x number				Turbo x 1										
Fan motor output			W	9		10		15	42			90		
Noise level (sound pressure)		High	dB(A)	38		41		44	42		45	48	49	52
		Med		35		37		38		40	42	44	47	49
		Low		31		34		35	37	39	39	41	43	45
Air filter				PP honeycomb net (Anti-mold)										
FUJITSU grille color				White (UTG-UDYD-W : Option)					White					
GENERAL grille color				White (UTG-UDGD-W : Option)										
Dimensions (H x W x D)		Net	mm	230 x 570 x 570					246 x 830 x 830			296 x 830 x 830		
		Gross		280 x 710 x 750					385 x 1,045 x 1,015			435 x 1,045 x 1,015		
Weight		Net	kg	18					34			40		
		Gross		23					45			53		
Pipe	Diameter	Liquid	mm	Ø6.35								Ø9.52		
		Gas		Ø9.52		Ø12.70			Ø15.88			Ø19.05		
	Connection method			Flare										
Drain pipe material / Outer dia. (mm) / Inner dia. (mm)				PS / Outer diameter 37mm / Inner diameter 32mm					ABS / Outer diameter 37mm / Inner diameter 32mm					

AU7 / AU9 / AU12
AU14 / AU18

AU20 / AU25 / AU30 Slim Type
AU36 / AU45 / AU54

Note: Specifications are based on the following conditions.
Cooling: Indoor temperature 27℃CDB/19℃CWB, and outdoor temperature 35℃CDB/(24℃CWB).
Heating: Indoor temperature of 20℃CDB/(15℃CWB), and outdoor temperature 7℃CDB/6℃CWB.
Voltage: 230 [V]

Group remote controller which can operate all the indoor units

Group remote controller

UTB-YDB / UTB-GDB [Option]

Group control of indoor units with simple operation

- Up to 8 indoor units can be controlled with a single controller.
- Network Convertor (UTR-YGCA) is required to connect Group Remote Controllers to an VRF system.

High performance and compact size

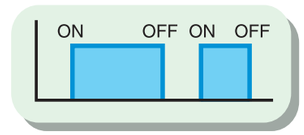
ON/OFF, operation mode, set temperature and air flow can be controlled / monitored centrally or individually.

Central control + ON/OFF control + Weekly timer →

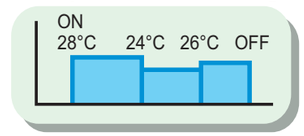
Built-in weekly timers

The WEEKLY TIMER is provided as a standard function.
1. The timer can be set up for up to 4 times/day. (On/Off, set temperature)
2. Allows separate settings for each day of the week.

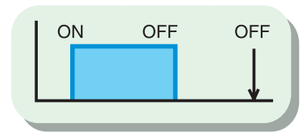
ON/OFF switching



Temperature switching

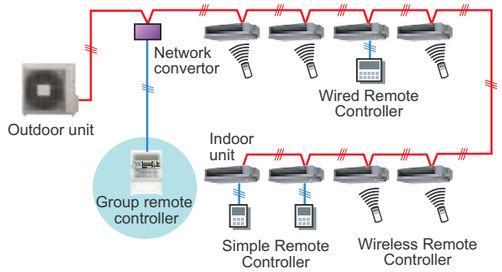


Stop setting



System configuration

Group/individual control of up to 8 units is possible with a single controller.



Specifications

Model		Group Remote Controller	Network Convertor
		UTB-YDB/UTB-GDB	UTR-YGCA [Option]
Power Supply		DC 12V	220-240V 50-60Hz
Dimension (mm)	Height	120	86
	Width	120	313
	Depth	17	216
Weight (g)		160	1,900

A controller can be chosen according to user comfortable, easily adjustable air flow

Wired remote controller

UTB-YUB / UTB-GUB / UTB-TUB [Option]

Weekly timer and timer function are easily operated.

Dimensions (H x W x D)	120 x 120 x 17

High performance and compact size

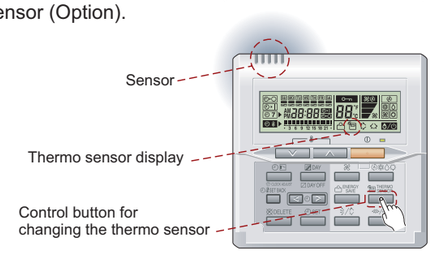
Wired remote controller, Weekly timer and Setback timer functions are combined in one compact unit.

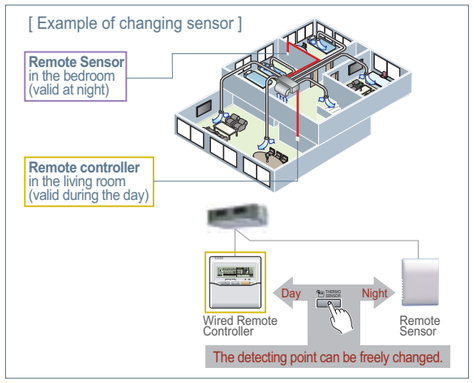
Simple installation

Components are compatible with standard switch boxes. Flat back construction allows equipment to be installed wherever it is needed.

Accurate and Comfortable

Indoor temperature can be detected accurately because a thermo sensor has been added in the body of the wired remote controller.
The detecting point in the room can be freely changed with the new type wired remote controller (thermo sensor added) and remote sensor (Option).





Simple remote controller

UTB-YPB / UTB-GPB / UTB-TPB [Option]
UTB-YRA / UTB-GRA / UTB-TRA [Option]

Simple remote controller concentrating on basic operations.

- Suitable when only basic operations are required for hotels, offices and other places where there is frequent arrival and departure of occupants.

Dimensions (H x W x D mm)	120 x 75 x 14

UTB-YPB / UTB-GPB / UTB-TPB

UTB-YRA / UTB-GRA / UTB-TRA

Simple operation

- Concentrates on basic operations such as On/Off, Fan Control, Operation Mode Switching, and Temperature Setting.
- A large Start/Stop button is provided in the centre of the remote controller unit for easy operation.
- The backlight is lit during button operations, and for 10 seconds longer in the operation mode and 5 seconds longer in the stop mode.

Functions

Operation \ Model	UTB-YPB UTB-GPB UTB-TPB	UTB-YRA UTB-GRA UTB-TRA
On/Off	●	●
Fan control	●	●
Operation mode	●	—
Temp. setting	●	●

Wall mounted type

AS18 / AS24 / AS30

Wireless remote controller

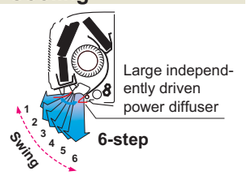
Features

Pleasant multi-air flow

Effective air flow within a room is achieved by the unique operation of the power diffuser. The angle of the louvre can be adjusted in six steps to give draught-free air flow.

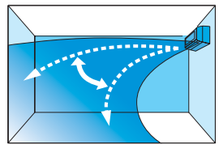
Wide air flow realized by unique operation of the power diffuser

Cooling



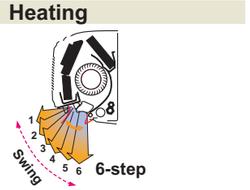
Large independently driven power diffuser

6-step

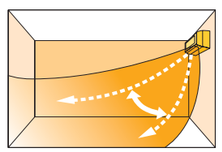


Horizontal concentration and other air direction control

Heating



6-step



Warm air reaches every corner of the room.

Step **Swing**

Other functions

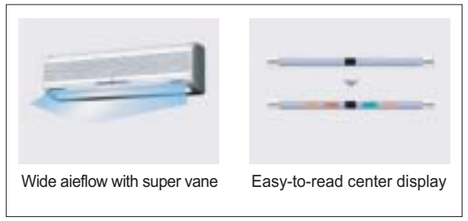
Other features include the functions of the existing wall mounted type.

- 2-way draining route
- Double auto swing

Optional parts

Air clean filter (UTR-FA08)

Symmetrical design



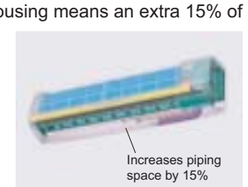
Wide aieflow with super vane

Easy-to-read center display

Vertical and horizontal symmetrical design matched to the interior decor

Easy installation

Larger space at base of housing means an extra 15% of piping space.



Attractive wall-mounted unit that delivers a needs

Wall mounted type (Compact)

AS7 / AS9 / AS12 / AS14

Wireless
remote controller

Features

*AS7/AS9/AS12/AS14 are only available for wireless remote controller.

Symmetrical design

Symmetrical, clean design that suits all interiors.

Compact size

Powerful output in spite of small size

Though the indoor unit is compact, it features a large, high pressure cross fan (90mm diameter) in a centre mounted configuration and a Lambda type heat exchanger to provide plenty of power.

Height	**257**
Width	**808**
Depth	**187**

Unit: mm

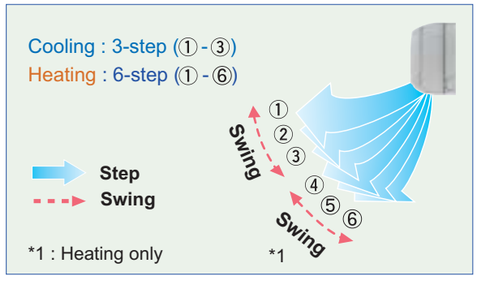
Low noise

Fan speed	dB (A)
HIGH	**30**
LOW	**26**

*AS7 model data

Auto swing louvre

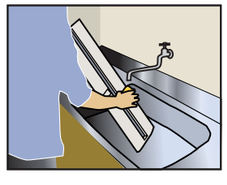
The Auto Swing Louvre function ensures that the air direction corresponds to the mode selected.

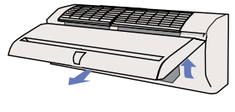


Washable open panel

Cleaning the washable panel removes mould and dust.

A regular wipe with a dry cloth keeps the casing clean.





Since the panel is removed and easily washed, it is always clean.
Filter cleaning is also simple.

Wireless remote controller

Four kinds of timers. Easy operation.

[Accessory]

Wireless remote controller is an accessory of all indoor units.

Dimensions (H x W x D mm)	158 x 56 x 20

Built-in timers

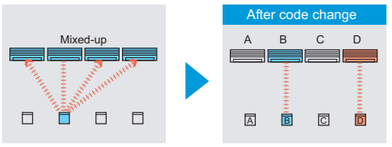
Select from four different timer programs (On/Off/Program/Sleep).

Program timer	The program timer operates the On and Off timer once within a 24 hour period
Sleep timer	The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling and heating while sleeping.

Cooling operation/dry ope.
When the sleep timer is set, the set temperature automatically rises 1 ℃ every hour up to a max. of 2 ℃.

Heating operation
When the sleep timer is set, the set temperature automatically drops 1 ℃ every 30 minutes down to a max. of 4 ℃.

Simple operation



Code selector switch prevents units from being wrongly switched. (Up to 4 codes can be set.)

- Wide and precise transmitting range.

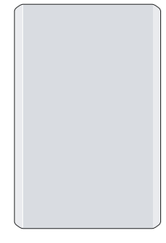
External switch controller

UTR-YESA [Option]

- On/Off, Temperature, Fan speed, and Operation mode can be switched in combination equipped with the Card-key switch or sensor switch.
- Switching of the air conditioner can be controlled by connecting other sensor switches.

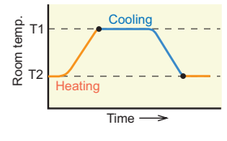
*Card-key and other sensor switches are available as field supplied parts.

Dimensions (H x W x D mm)	120 x 75 x 30



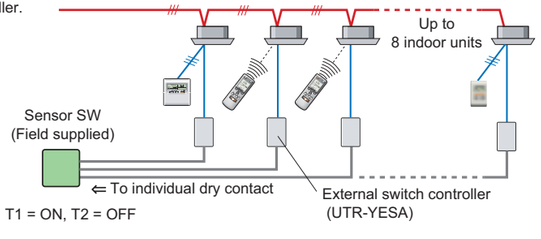
Installation example

- Auto mode operation, which switches the cooling and the heating automatically, is enabled by using the sensor switch and external switch controller. In that case, all indoor units run in the same operation mode.



Note 1.
Please choose a thermosensor switch which can be set up for T1 and T2.

Note 2.
The remote controller's operation is prior to the auto mode operation.



Select to match the capacity and type of the room very low ceilings

Indoor unit line up

8 types 28 models, ranging from 2.15kW to 14.10kW.

(kW)	Model code	Cassette Type (Compact)	Cassette Type	
		Model AU7 / AU9 / AU12 / AU14 / AU18	Slim Type Model AU20 / AU25 / AU30	Model AU36 / AU45 / AU54
		P14	P15	
14.1	54		AU54	
12.7	45		AU45	
10.5	36		AU36	
8.80	30		AU30 Slim Type	
7.05	25		AU25 Slim Type	
6.90	24			
6.00	22			
5.70	20		AU20 Slim Type	
5.30	18	AU18		
4.00	14	AU14		
3.60	12	AU12		
2.80	9	AU9		
2.15	7	AU7		

Accessories

Wireless remote controller	●	●
IR receiver unit	—	—

*Wireless remote controller and IR receiver unit is supplied with all duct type indoor units.

Duct type

AR25 / AR30 / AR36 / AR45

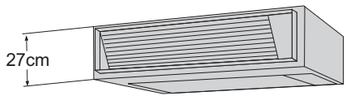
Wireless remote controller

IR receiver unit

Features

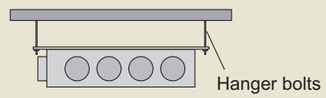
Savings in space and reduction in noise

These duct type indoor units save space and provide excellent acoustic characteristics.

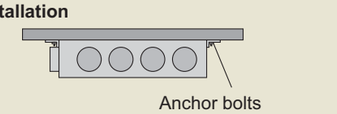


Easy installation

Suspended Installation



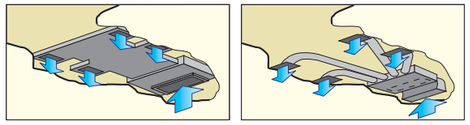
Direct Installation



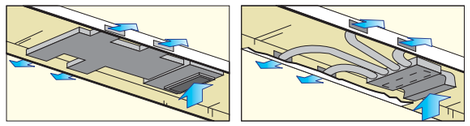
Installation example

Installation styles

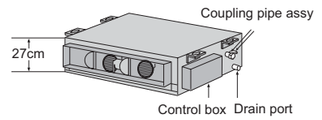
Embedded Ceiling



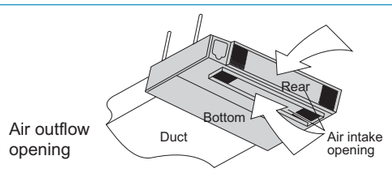
Hanging from Ceiling



Piping can be run in almost any direction



Fresh air can be taken in from 2 directions



Optional parts

Flange (square)	UTD-SF045T
Flange (round)	UTD-RF204
Long-life filter	UTD-LF270
Remote sensor unit	UTD-RS100

Ultra-slim duct air conditioner for use with

*Wireless remote controller and IR receiver unit is supplied with all duct type indoor units.

Duct type (Compact)

AR7 / AR9 / AR12 / AR14 / AR18 / AR22

Wireless remote controller

IR receiver unit

Features

Compact and space-saving design

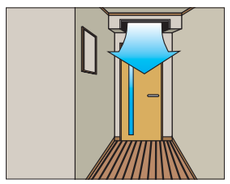
Ultra-slim unit simplifies installation.

AR7 / AR9

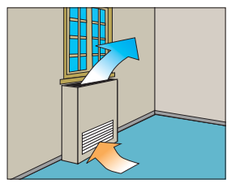
AR12 / AR14 / AR18 / AR22

Easy installation (Universal type)

Slim and compact dimensions allow for ceiling installation or floor standing.

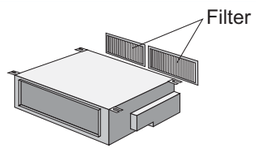


Perfectly housed in ceiling space.



Perfectly housed in the space below a window.

Filter (Accessory)



Low noise level

These compact duct type units are extremely quiet.

Model		7	9	12	14	18	22
Static pressure (standard/max)	Pa	0 / 40					
Air flow volume (high/low)	m^3/h	420/360		620/470		890/780	
Noise level (Low speed)	dB(A)	31		27		38	

Installation example

Others

Auto restart
Air intake from rear or bottom side

Optional parts

Remote sensor unit UTD-RS100

Slim and compact cassette, designed for limited ceiling space

Cassette type (Compact)

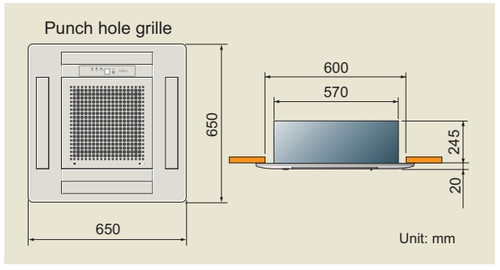
AU7 / AU9 / AU12 / AU14 / AU18

Wireless remote controller

Features

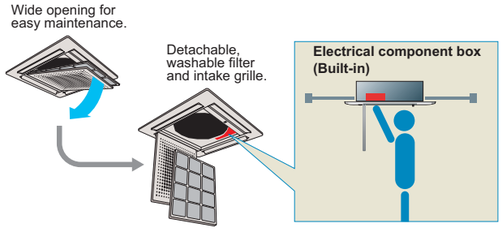
Compact size

Compact grille fits European ceiling panel (600mm x 600 mm).

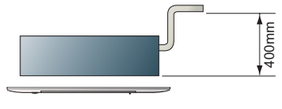


Easy maintenance

Placing all the electrical components inside the unit ensures easy maintenance.

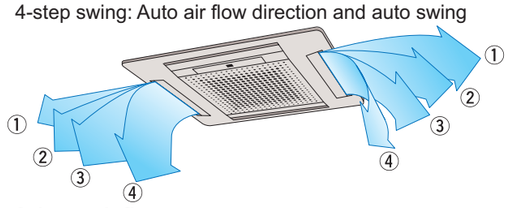


Condensate pump lifts to 400mm

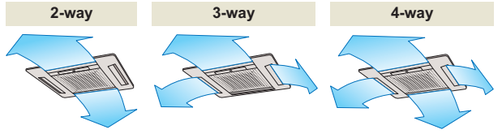


Comfortable air flow

4-step swing: Auto air flow direction and auto swing

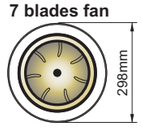


2-4 way air flow system:
Select 2-way, 3-way, or 4-way air flow to suit your needs.



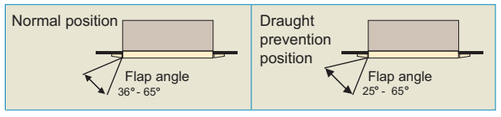
Extremely quiet

Large air flow at reduced noise output achieved by incorporating a large diameter variable pitch turbo fan.



Draught prevention

The angle of the flap can be changed during installation, thereby preventing uncomfortable draughts.



Optional parts

Grille kit UTG-UDYD-W, UTG-UDGD-W

Cassette type

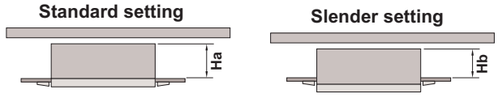
AU20 / AU25 / AU30 Slim Type
AU36 / AU45 / AU54

Wireless remote controller

Features

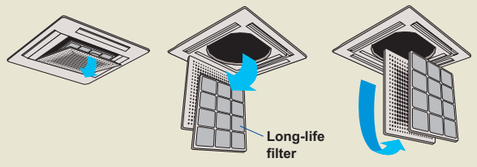
Flexible installation

Compact body ensures space saving installation.
A slender fit option is available where ceiling void space is limited.



	Standard setting	Slender setting
	Ha	**Hb**
AU20 / AU25 / AU30	235	200
AU36 / AU45 / AU54	285	250

Easy maintenance

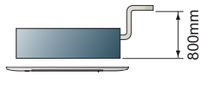


Long-life filter
High efficiency, long-life filter extends the cleaning cycle.

Simple maintenance
The control box is easy accessible for maintenance work.

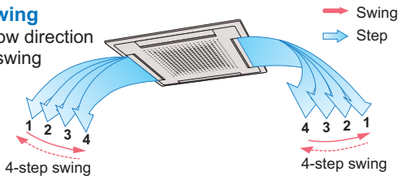
Detachable, washable filter and intake grille.

Condensate pump lifts to 800mm

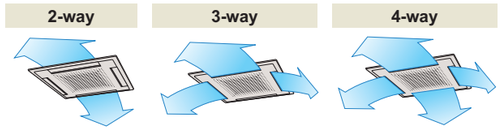


Comfortable air flow

4-step swing
Auto air flow direction and auto swing



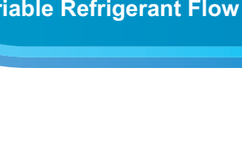
2~4 way air flow system
Select 2-way, 3-way or 4-way air flow to suit your needs.



Wide air flow
Unit louvre distributes the outlet air flow further in the horizontal direction.

Duct connection hole opening

Fresh air can be introduced through this opening.

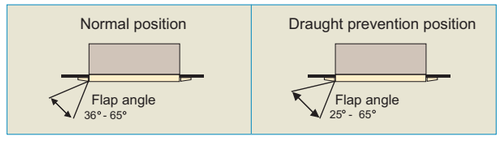


Conditioned air can be distributed by means of a distribution duct.

Improved noise level and air distribution

Noise output has been dramatically lowered.

- Improved turbo fan shape (aerodynamic design)
- Expanded air distribution
- Low internal resistance
- Moulded fan motor

Draught prevention

The angle of the flap can be changed during installation, thereby preventing uncomfortable draughts.